



*"Building a Quality Arizona"*

*Statewide Rail  
Framework Study*

# **Rail Technical Advisory Team**

Statewide Rail Framework Study

August 26, 2009

**2050 Vision**



# Agenda

- Welcome and Introductions
- Rail Framework Study Context
- Discussion of Rail Strategic Opportunities
  - Freight Rail
  - Passenger Rail
  - Organizational Development and Support Systems
- Next Steps



# Rail Framework Study Context

- Establishes a 2050 rail transportation vision for Arizona
- Incorporates input from railroads, economic development organizations, regional and local stakeholders, transportation agencies, and Rail TAT
- Builds interconnectivity between livable communities in the Sun Corridor in a sustainable manner
- Complements other long-range multimodal transportation components from Statewide Transportation Planning Program
- Positions Arizona as a rail partner in the Southwest region







# Freight Rail Strategic Opportunities

- BNSF Phoenix Metropolitan Area Development and Operations
- BNSF Statewide Development and Operations
- UP Tucson Metropolitan Area Development and Operations
- UP Statewide Development and Operations
- Development/Expansion of Mexican Deep-water Ports
- Development/Expansion of Inland Ports
- New Freight/Passenger Rail Corridor in the Greater Hassayampa Valley
- Development/Expansion of Short Line Railroads

# BNSF Phoenix Metropolitan Area Development and Operations

- **Strategic Opportunity:**
  - Arizona partners with BNSF to establish the Peavine as a major artery in a comprehensive statewide rail system.
- **Elements:**
  - Achieve control of Peavine corridor; upgrade track for commuter/freight rail shared use.
  - Relocate BNSF classification (Mobest Yard) out of central Phoenix.
  - Construct safety improvements along the BNSF Peavine corridor.
  - Ensure ability to use Peavine for future commuter and intercity rail.
  - Use the former Mobest Yard for redevelopment or passenger-rail related uses.





# BNSF Statewide Development and Operations

- **Strategic Opportunity:**

- Arizona partners with BNSF to maintain the BNSF Transcon as a major artery in a comprehensive statewide rail system.

- **Elements:**

- Study feasibility of a freight bypass around Flagstaff.
- Construct local circulation and safety improvements (e.g., grade separations).
- Establish policy that any roadway improvements need to handle BNSF triple-tracking (e.g., rights-of-way, bridge clearances).
- Facilitate coordination with environmental interests to mitigate habitat fragmentation.







# UP Tucson Metropolitan Area Development and Operations

- **Strategic Opportunity:**

- Arizona partners with UP to maintain the UP Sunset Corridor in the PAG region as a major artery in a comprehensive statewide rail system.

- **Elements:**

- Facilitate relocation of classification yard outside central Tucson (e.g., Red Rock) and promote rail-related economic development.
- Study feasibility of improving freight train movements through or around Tucson.
- Construct safety improvements along the Sunset Corridor.
- Work with UP to explore opportunities for commuter and intercity rail serving the Tucson metropolitan area.





# UP Statewide Development and Operations

- **Strategic Opportunity:**
  - Arizona partners with UP to maintain the Sunset Corridor and the Phoenix Subdivision as major arteries in a comprehensive statewide rail system.
- **Elements:**
  - Study feasibility of a freight bypass around Nogales.
  - Explore opportunity to reopen Wellton Branch for freight and passenger rail service.
  - Construct local circulation and safety improvements (e.g., grade separations).
  - Establish policy that any roadway improvements need to handle UP double- or triple-tracking (e.g., rights-of-way, bridge clearances).
  - Facilitate coordination with environmental interests to mitigate habitat fragmentation.





# New Freight/Passenger Rail Corridor in the Greater Hassayampa Valley

- **Strategic Opportunity:**
  - Arizona creates a north-south rail corridor offering freight and passenger rail opportunities between Class I mainlines, and as a spine in the Sun Corridor.
- **Elements:**
  - Investigate the feasibility of constructing a new north-south shared freight and passenger rail corridor through the greater Hassayampa Valley in up to three segments:
    - BNSF Peavine to UP Wellton Branch.
    - UP Wellton Branch to UP mainline.
    - UP mainline to Mexico.



## Development/Expansion of Mexican Deep-water Ports

- **Strategic Opportunity:**

- Arizona coordinates with public and private entities to take advantage of any economic opportunities from the development or enhancement of deep-water ports in Mexico.

- **Elements:**

- Monitor deep-water port opportunities and actions in Mexico.
- Continue coordination through the Arizona/Mexico Commission.
- Engage in partnerships with the private sector to take advantage of port development.
- Coordinate with the Mexican federal and state governments (e.g., SCT, SIDUR).







# Development/Expansion of Inland Ports

- **Strategic Opportunity:**

- Arizona takes advantage of freight-related economic development opportunities through the expansion or development of inland ports.

- **Elements:**

- Facilitate understanding and coordination of state agencies and the private sector on the economic benefits of inland ports.
- Monitor deep-water port opportunities and actions in Mexico.
- Monitor capacity issues and improvements to the ports of Los Angeles and Long Beach.
- Identify infrastructure improvements that could support inland port development.
- Develop incentives and funding mechanisms for inland port development.







## Development/Expansion of Short Line Railroads

- **Strategic Opportunity:**

- Arizona supports the continuing viability of short lines and promotes increased economic development opportunities.

- **Elements:**

- Develop and update an inventory of short line rail infrastructure.
- Preserve right-of-way for the state's future passenger and freight rail system.
- Preserve inactive and abandoned right-of-way (e.g., rail banking).
- Work with economic development organizations to attract industry to short line corridors.
- Explore opportunities for financial assistance to short line railroads.





# Passenger Rail Strategic Opportunities

- High-Speed Interstate Passenger Rail
- Phoenix/Tucson Intercity Rail
- Megapolitan Extensions of the Phoenix/Tucson Intercity Rail Corridor
- Enhancement of Amtrak Passenger Rail Service
- Incorporation of MAG and PAG Commuter Rail Planning

## Phoenix/Tucson Intercity Rail

- **Strategic Opportunity:**
  - Arizona develops intercity rail in the Sun Corridor and creates a high-capacity rail corridor that could lead to high-speed rail.
- **Elements:**
  - Participate with MAG and PAG in commuter rail planning, identify potential joint use corridors, and plan shared operations.
  - Develop alignment options for Phoenix/Tucson Intercity Rail through ADOT AA/EO, in coordination with regional planning organizations.
  - Initiate intercity rail corridor as a precursor to high-speed rail.







# Megapolitan Extensions of the Phoenix/Tucson Intercity Rail Corridor

- **Strategic Opportunity:**
  - Arizona builds on the foundation laid in the Phoenix/Tucson segment – extending a high-capacity rail corridor that could lead to high-speed rail.
- **Elements:**
  - Study feasibility of an intercity rail extension to the north (Prescott, Flagstaff, the Grand Canyon).
  - Study feasibility of an intercity rail extension to the south toward Nogales.
  - Study feasibility of an intercity rail extension to the southeast toward Sierra Vista.





# Incorporation of MAG and PAG Commuter Rail Planning

- **Strategic Opportunity:**

- Arizona establishes commuter rail serving the two major metropolitan areas of the Sun Corridor, complementing intercity rail service between Phoenix and Tucson.

- **Elements:**

- Pursue MAG commuter rail recommendations.
- Pursue PAG commuter rail recommendations.
- Coordinate MAG and PAG commuter rail logistics with the pending ADOT Intercity Rail AA/EO.
- Potentially use the ADOT Intercity Rail AA/EO East Valley corridor and Tucson connection as MAG and PAG commuter rail corridors and intercity rail links between Maricopa and Pima counties.







# Enhancement of Amtrak Passenger Rail Service

- **Strategic Opportunity:**
  - Arizona facilitates the enhancement of Amtrak service, better serving travelers and attracting visitors, as well as builds a ridership base for future high capacity rail.
- **Elements:**
  - Implement general Amtrak improvements, including restoring improved service to Phoenix.
  - Implement Sunset Limited capital and service improvements.
  - Implement Southwest Chief capital and service improvements.





# High-Speed Interstate Passenger Rail

- **Strategic Opportunity:**
  - Arizona becomes part of an Intermountain West high-speed rail system and eventually linking into the national network.
- **Elements:**
  - Pursue Phoenix/Tucson intercity rail corridor as the foundation for future high-speed rail.
  - Study feasibility of high-speed rail corridors from Phoenix/Tucson to:
    - Las Vegas
    - Los Angeles
    - San Diego
    - Front Range (Albuquerque/Denver)





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# Organizational Development and Support Systems

- State Agency Lead
- Statewide Rail Authority
- Alternative or Hybrid Models

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## State Agency Lead

### **Advantages:**

- Builds on past experience from rail corridor studies and rail enhancement projects.
- Uses existing qualified planning staff.
- Generally eligible for all federal rail programs as a state department.
- Directly accountable to the Governor.
- Facilitates coordination between rail and highway improvement projects, other capital improvement projects, and environmental agencies.

### **Disadvantages:**

- May be constrained in ability to implement rail projects by state statutes that restrict work with private parties.
- May require change of staff functions with regard to multimodal planning.
- May be perceived by stakeholders as having a highway focus or top-down approach.
- Potentially constrained in administrative functions, such as procurement and personnel.





## State Agency Lead: Examples

- **North Carolina DOT, Public Transit and Rail Division:**
  - Engineering & Safety Branch coordinates crossing improvements, inspections, and technical studies.
  - Planning Branch conducts studies, regional coordination, and freight and industrial access assistance programs.
  - Operations Branch plans, finances and markets passenger rail services.
- **Colorado DOT, Transit and Rail Division:**
  - New division responsible for planning, promoting, and implementing rail and transit.
- **Ohio Rail Development Commission:**
  - Independent commission within Ohio Department of Transportation.
  - Conducts all statewide passenger and freight rail activities.
  - Light Rail Transit safety oversight and other local mass transit activities carried out by ODOT Division of Transportation System Development.
- **Virginia Department of Rail and Public Transportation:**
  - Conducts all statewide passenger, freight rail and local transit activities.
  - Separate from Virginia DOT, but closely coordinates multimodal planning.



# Statewide Rail Authority

## **Advantages:**

- Enabling legislation tailored to the mission of the authority.
- Brings together stakeholders on the governing board by including private and civic interests.
- Potentially less constrained by state statutes restricting PPP and eminent domain.
- Potential to acquire railroad right-of-way at risk of abandonment more quickly.
- Streamlined project execution (planning to design to implementation).
- Can outsource operations more easily based on cost advantages.

## **Disadvantages:**

- May requires state legislation to create, and determining governance structure may be controversial and lengthy.
- Potential duplication of planning functions between rail authority and DOT rail planning.
- Coordination with DOT and other states potentially more complicated.
- Could be perceived as less accountable to constituents and elected officials.
- Competition for state transportation funding.
- Not eligible for all grant programs.



## Statewide Rail Authority: Examples

- **California High Speed Rail Authority:**
  - Small core staff, most work contracted to private firms.
  - Some funding passed through by CalTrans, some direct grant applications.
- **South Dakota State Railroad Authority:**
  - Deals only with freight rail.
  - Created to purchase and maintain freight rail corridors at risk of abandonment.
  - Consolidates corridors for re-sale to private railroads.
- **Rocky Mountain Rail Authority:**
  - Created by local agreement to conduct state-sponsored, high-speed rail feasibility study.
  - Comprised of local governments.





## Alternative or Hybrid Models



- **New Mexico Rail Runner:**

- Right-of-way and rolling stock owned by NMDOT.
- Operations and dispatching responsibility of MRCOG.
- Original administration and governance through MRCOG Regional Council.
- Current administration and governance migrated to Regional Rail Agency.

- **Metrolink:**

- Metrolink managed by a JPA between five transportation commissions of surrounding counties.
- Train equipment owned by CalTrans; maintenance facilities owned by CalTrain; stations owned and maintained by individual cities.
- Amtrak is contracted for operations and maintenance.





# Next Steps

- Formulate implementation program.
- Integrate rail strategic concepts into Statewide Transportation Planning Program.





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# Thank You!

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